[0246] Exemplary embodiments can also be embodied as computer readable codes on a computer readable recording medium.

[0247] For example, the apparatus for encoding an image, the apparatus for decoding an image, the motion vector encoder, and the motion vector according to exemplary embodiments may each include a bus coupled to each element included in the apparatuses in FIGS. **1**, **2**, **4**, **5**, **9**, and **14** and at least one processor combined to the bus. Also, the apparatuses may each include a memory coupled to at least one processor for executing commands by being combined to the bus in order to store the commands, received messages, or generated messages.

[0248] The computer readable recording medium is any data storage device that can store data which can be thereafter read by a computer system. Examples of the computer readable recording medium include read-only memory (ROM), random-access memory (RAM), CD-ROMs, magnetic tapes, floppy disks, and optical data storage devices. The computer readable recording medium can also be distributed over network coupled computer systems so that the computer readable code is stored and executed in a distributed fashion.

What is claimed is:

1. An image decoding method comprising:

decoding, from a bitstream including an image, information about a motion vector difference for a current block and information about a motion vector predictor for the current block;

generating a motion vector predictor candidate group;

modifying the motion vector predictor candidate group based on vectorial values of motion vector predictor candidates in the motion vector predictor candidate group;

determining a motion vector predictor for the current block from among motion vector predictor candidates in the modified motion vector predictor candidate group based on the information about the motion vector predictor; and

determining a motion vector for the current block based on the motion vector predictor and the information about the motion vector difference,

wherein, the modified motion vector predictor candidate group includes at least one of a 1st motion vector predictor candidate and 2nd motion vector predictor candidates, the 1st motion vector predictor candidate is a motion vector of a collocated block to the current block, the collocated block is located in a reference picture, the 2nd vector predictor candidates are motion vectors of neighboring blocks of the current block, wherein the neighboring blocks includes a first block located in lower left side of the current block, and includes a second block located in upper side of the first block,

wherein the modifying the motion vector predictor candidate group comprises modifying the motion vector predictor candidate group, when at least two of 2nd motion vector predictor candidates have the same value, by removing all of the at least two of 2nd motion vector predictor candidates except for one of the at least two of 2nd motion vector predictor candidates from the motion vector predictor candidate group,

wherein the image is split into a plurality of maximum coding units according to information about size of the maximum coding units, the maximum coding unit is hierarchically split into one or more coding units of depths including at least one of a current depth and a lower depth, and

wherein the current block is included in one of the one or more coding units of depths including at least one of the current depth and the lower depth.

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